

## **EE/CprE/SE 491 WEEKLY REPORT 6**

**3/24/26-3/31/26**

**Group number: sddec26-03**

**Project title: Squirrely Bird Feeders - Using AI to outsmart the Squirrels**

**Client &/Advisor: Randall Geiger**

### **Team Members:**

- Wyatt Sinclair
  - Jack Morrison
  - Miles Nichols
  - Kenny Tran
  - Benjamin Bartels
  - Nolan Hoenert
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- **Weekly Summary:** After using when2meet and reviewing the data, we found that Mondays at noon to 1pm are the best date and time for our team to meet at. We got a message from ETG saying that they will place our order and they will let us know when it comes in.
  
  - **Past week's accomplishments**
    - Jack Morrison: Continued work with Kenny on UI prototypes, was unable to get to remote hosting options and available solutions.
    - Wyatt Sinclair: Worked on the design document and polished the code for the BirdCam
    - Nolan Hoenert: Worked on the design document, specifically the gantt chart, making a rough project plan/ timeline, so everybody has an idea of how long we have, and how when parts of the project need to be finished.
    - Benjamin Bartels: Got the parts list approved by our advisor, and ETG has received the approved order request. Worked on updating the 3D model of the birdfeeder so that the parts we ordered after modifying its design would all fit.
    - Kenny Tran: Initial outreach to the College of Business students for potential market analysis (suggested by advisor). Continued with UI prototyping and brainstorming features.
    - Miles Nichols: Worked on the project plan, using our ideas to complete part 3 of the design document.

- **Pending issues:**

Wyatt Sinclair: N/A

Jack Morrison: N/A

Nolan Hoenert: N/A

Miles Nichols: N/A

Kenny Tran: Reach out to Audubon Society.

Benjamin Bartels: N/A

Everyone: Waiting for parts to get ordered and arrive

- **Individual contributions:**

<b><u>NAME</u></b>	<b><u>Individual Contributions</u></b> <i>(Quick list of contributions. This should be short.)</i>	<b><u>Hours this week</u></b>	<b><u>HOURS cumulative</u></b>
Jack Morrison	Worked on more UI layouts	4	28
Miles Nichols	Worked on part3 of the design document to complete our project plan.	6	36
Wyatt Sinclair	Polished Birdcam model and design document.	4	35
Nolan Hoenert	Started block diagram iterations	6	34
Kenny Tran	Rejected by the college of business peers. UI and application design work.	6	34
Ben Bartels	Got our advisor to approve the order. And worked on updating the 3D model of the birdfeeder for the modified design.	6	35

- **Comments and extended discussion**

[Squirrely Bird Feeder Design Sets - Google Docs](#)

- **Plans for the upcoming week** *(Please describe duties for the upcoming week for each member. What is(are) the task(s)? Who will contribute to it? Be as concise as possible.)*

- Jack Morrison: Really get to look at remote hosting and available solutions, also continue UI work.
- Miles Nichols: Work on the team website and continue helping connect the functionality of the ML model. Additionally, change the design document to plan on raspberry pi communicating directly with the server (no base station).
- Kenny Tran: Initial contact in the Audubon Society for questions about birds/ecology.
- Benjamin Bartels: Continue to update the birdfeeder 3D model and assemble all the parts together in the 3D design software. Research birdfeeds for local species and which kind local squirrels tend to favor, and place an order request for some birdfeed.
- Wyatt Sinclair - Make a detailed list of how the software runs and its functionalities, along with how it connects to other parts of the project. Work on team website.
- Nolan Hoenert: Look into the server options that ETG provides, look into whether to use wifi/bt and how to handle sending the data from the pi to the server.

○ **Summary of weekly advisor meeting:**

Talked about: Next time we are ordering parts, include an estimated price alongside the BOM template for the advisor. What type of seeds do squirrels like or dislike?

Look into whether Iowa State University offers a wildlife ecology program.

Iowa State has a wildlife and fisheries conservation and ecology program.

Graduate school program ^^

Suggested that we ask the faculty involved in the wildlife ecology program for questions regarding squirrel behavior.

Need to look into which kind of bird feed we will use to test our feeder. Ideally a feed that attracts squirrels instead of deterring them, so that our bird feeder is doing the deterring.

Need to consider what birds we are attracting.

Contact someone in the Audubon Society.